#### Glencoe/McGraw-Hill

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<u>Grade</u>

9,10,11,12

## **Elementary Statistics: A Step by Step Approach**

Elementary Statistics: A Step by Step Approach is for general beginning statistics courses with a basic algebra prerequisite. The book is non-theoretical, explaining concepts intuitively and teaching problem solving through worked examples and step-by-step instructions. This edition places more emphasis on conceptual understanding and understanding results. This edition also features increased emphasis on Excel, MINITAB, and the TI-83 Plus and TI 84-Plus graphing calculators, computing technologies commonly used in such courses

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Research and Readibilities not available for Higher Ed (AP) Titles.			TYPE
	Teacher Edition		P1
007326296X		\$108.25	
Elementary Sta	atistics: A Step by Step Approach		Copyright
	Essential Items		2007
	Ancillary Items		<u>Author</u>
	Free with Purchase items		Bluman
0073048267 Free per Studer	Study Guide	\$45.25	<u>Edition</u>
0073048275	Student Solutions Manual	\$42.50	6
Free per Stude	nt		Content
0073103691 Free Per Teach	Instructor Solutions Manual	\$30.75	Statistics
0073103748	MiniTab Manual	\$39.25	
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0073103764	TI-83 Plus/TI-84 Plus Graphing Calculator Manual	\$39.25	N/A
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0073103772	Excel Manual	\$39.25	<u>Accessibility</u> Nimas
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	Teacher Edition ISBN if applicable $007326296\mathrm{X}$				

#### **Overall Recommendation:**

#### Recommended as BASAL

# **Overall Strengths, Weaknesses, Comments:**

if this box is not checked, the evaluators have chosen NOT recommend as basal

The text covers the Program of Studies for Data Analysis and Probability. The reading level is high for younger students. The teacher edition provides very few differentiation approaches or supplements to the student edition. There are detailed explations for technology use (calculators and Excel). There is also access to mathzone.com which provides the instruction with the opportunity for online assignments and assessments which can be modified for individuals.

NIMAC Accessibility N Ancillary No Free with Purchase Yes Research No

Elementary Statistics: A Step by Step Approach is for general beginning statistics courses with a basic algebra prerequisite. The book is non-theoretical, explaining concepts intuitively and teaching problem solving through worked examples and step-by-step instructions. This edition places more emphasis on conceptual understanding and understanding results. This edition also features increased emphasis on Excel, MINITAB, and the TI-83 Plus and TI 84-Plus graphing calculators, computing technologies commonly used in such courses

#### **CRITERIA**

This basal resource ...

# A. Encompasses KY Content Standards & Grade Level Expectations Strong Evidence

Text is designed to be used in an elective course outside the Program of Studies

Text is designed to be used in an elective course outside the Program of Studies				
1) Includes the 5 Big Ideas of mathematics to the following extent:				
a) Number Properties and Operations	Not Applicable			
b) Measurement	Not Applicable			
c) Geometry	Not Applicable			
d) Data Analysis and Probability	Strong Evidence			
e) Algebraic Thinking	Not Applicable			
2) Addresses content-specific enduring understandings from the related Program of Studies standards.	Strong Evidence			

3) Addresses content-specific skills and concepts from the related Program of Studies standards.	Strong Evidence
4) Content addressed is current, relevant and non-trivial	Strong Evidence
5) Provides opportunities for critical thinking/reasoning	Strong Evidence

## 6) Strengths, Weaknesses, Comments:

- Specific strengths-which areas/concepts are covered exceptionally well?
- Specific weaknesses-which areas/concepts would likely require supplementing?

The text covers the Program of Studies for Data Analysis and Probability. The material is current and relevant. The text provides opportunites to analyze, and extend the information and concepts.

## **B.** Functionality & Suitability

#### **Moderate Evidence**

# 1) Suitability

#### **Moderate Evidence**

• Should be suitable for use with a diverse population and is free of bias regarding race, age, ethnicity, gender, religion, social and/or geographic environment; is free of stereotyping or bias of any kind.

## 2) Content quality

# **Moderate Evidence**

- Free from factual errors
- Content is presented conceptually when possible—more than a mere collection of facts
- Content included accurately represents the knowledge base of the discipline
- Theories/scientific models contained represent a broad consensus of the scientific community
- Interconnections among mathematical topics

#### 3) Connections to Literacy

#### **Moderate Evidence**

- Employs a variety of reading levels and is grade/level appropriate
- Use of multiple representations-concrete, visual/spatial, graphs, charts, etc.
- Provides opportunities for summarizing, reviewing, and reinforcing vocabulary skills and concepts at multiple levels of difficulty for a variety of learning styles.
- Student text provides opportunity to integrate reading and writing
- Uses vocabulary that is age and content appropriate
- Focuses on critical vocabulary vs. extensive lists
- Identifies key vocabulary through definitions in both text and glossary
- The text is engaging and facilitates learning
- Embedded activities enhance the understanding of the text *Note: may apply to either student or teacher editions*

## 4) Connections to Technology

# **Strong Evidence**

- Integrates technology and reflects the impact of technological advances
- Uses technology in the collection and/or manipulation of authentic data
- Embeds web links as a mathematics resource.

## 5) Support for Diverse Learners

#### Little or No Evidence

- Provides support for ESL students
- Provides support for differentiation of instruction in diverse classrooms
- Challenge for gifted and talented students
- Support for students with learning difficulties

*Note: may apply to either student or teacher editions* 

## 6) Strengths, Weaknesses, Comments:

• Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

Reading level is for more advanced students. Many activities and connection embedded in the text. Great use of technology and explanation of how to use both graphing calculators and Excel. The teacher edition lacks any supporting materials for differentiation, ESL students, and students with learning disabilities.

# C. Supports Inquiry and Skill Development

## **Moderate Evidence**

# 1) Promotes Inquiry, research and Application of Learning Moderate Evidence

- Provides opportunities for inquiry and research that includes activities such as gathering
  information, researching resources, observing, interviewing, and evaluating information,
  analyzing and synthesizing data and communicating findings and conclusions, formulating
  authentic questions to deepen and extend mathematical reasoning.
- Requires students to use higher-level cognitive skills (analysis, synthesis, evaluation, generalizing, justifying, etc.)
- Provides activities and projects for students to deepen their knowledge and cultivate and strengthen problem-solving and decision-making skills.
- Provides opportunities for application of learned concepts.
- Uses a variety of relevant charts, graphs, diagrams, number lines, and other illustrations to invite and motivate students to engage in discussion, problem solving, and other high-order thinking skills.
- Emphasizes conceptual understandings that invite students to predict, conclude, evaluate, develop and extend ideas to support reasoning.

  Note: may apply to either teacher or student edition

## 2) Skill Development

#### Moderate Evidence

- Provides opportunities to make sense of all mathematics
- Provides opportunities to recognize, create, and extend patterns.
- Provides opportunities for critical thinking and reasoning.
- Provides opportunities to justify/prove responses.
- Provides opportunities to ask deeper questions.
- Contains embedded activities (or extensions) that emphasize use of technology for problem solving

Note: may apply to either teacher or student edition

# 3) Strengths, Weaknesses, Comments:

Provides only a few activities for the students that require them to collect data. There are numerous applications to real-life situations. There are no extension opportunities for the students. There are a few higher-level questions.

# D. Supports Best Practices of Teaching and Learning

## **Strong Evidence**

## 1) Engages Students

Strong Evidence

- Includes content geared to the needs, interests, and abilities of all students
- Engages and motivates students using components such as real-life situations, simulations,

- experiments, and data gathering.
- Includes information and activities that assist students in seeing relevance of concepts (where appropriate) to their own lives and experiences
- Provides a variety of strategies, activities, and materials to enhance student learning at the appropriate learning levels
- Activities are truly congruent to the concepts addressed, not merely correlated *Note: may apply to either teacher or student edition*

#### 2) Uses Assessment to Inform Instruction

Strong Evidence

- Includes multiple means of assessment as an integral part of instruction
- Provides evaluation measures in the teacher edition that supports differentiated learning activities
- Embedded assessments reflect a variety of Depth of Knowledge levels Note: may apply to either teacher or student edition

# 3) Strengths, Weaknesses, Comments:

 Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards

With the teacher edition you receive access to mathzone.com. Here the teacher can create assignments and assessments online for the students to access in an online environment. This allows for differentiation of activities and assessments for individual students.

# **E.** Has an Organization/ Format that Supports Learning and Teaching

**Strong Evidence** 

## 1) Organizational Quality

Strong Evidence

- Print and/or electronic materials present minimal barriers to learners, but also add encouragement for students to stretch and make further explorations.
- Presents chapters/lessons in an organized and logical sequence
- Provides clearly stated objectives for each lesson.
- Uses text features (e.g., titles, headings, subheadings, review questions, goals, objectives, space, print, type size, color) to enhance readability.
- Makes use of various forms of media (e.g., CD's, recordings, videos, cassette tapes, computer software, web-based components, interactive software, calculators, physical and virtual manipulatives) as either student or teacher resources
- Includes clear, accurate, appropriate and clearly explained illustrations and/or graphics that reinforce content standards.
- Incorporates a glossary, footnotes, recordings, pictures, and/or tests that aid pupils and teachers in using the book effectively
- Uses grade-appropriate type size
- Included media are durable, easy to use and have technical merit
- Construction appears to be durable and able to withstand normal use

## 2) Essential Components (beyond student and teacher text)

Strong Evidence

 Items identified as essential components support the learning goals and concept coverage of the basal

#### **3)** Strengths, Weaknesses, Comments:

• Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

Excellent use of technology including websites, media, and descriptions of the use of Excel and

graphing calculators to compute and solve. There is a useful pamphlet with formulas and tables for the students to use which can be removed from the book for easy access.

# F. Has available Ancillary/ Gratis Materials

Note: The decision whether to recommend or not recommend this resource as a basal should not be influenced by Section F

**Strong Evidence** 

## 1) Ancillary/Gratis Materials

- Coordinates teacher resources easily with student material (e.g., accompaniments included, student pages shown, instructional technology indicated).
- Are well-organized and easy to use
- Provide substantive learning opportunities and are congruent with student learning goals
- Provide opportunities for high-level thinking, assessment, and/or problem solving
- Provides opportunities for intervention.

## 2) Strengths, Weaknesses, Comments:

• Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

Student manual contains multiple choice as well as practice tests and short answer questions. There are supplemental manuals for graphing calculators and Excel, which give step-by-step instructions. There is a video lecture series for individual lessons which can be used to differentiate learning for students.